

# **Key Drivers of Welfare Project Benefits in Participatory Local Governance:**

## **A Study of Two *Gram Panchayats* in India**

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### **Abstract**

This study aims to explore the key factors that influence the monetary value of benefits that households receive from the welfare projects initiated by *Gram Panchayats* (local government bodies in rural areas) in Kerala, India. A global trend toward decentralisation has led to local governments enjoying more control over their finances. In India, the 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment of 1992 introduced *Panchayati Raj* Institutions (PRIs) as the third tier of its federal governance structure. In the state of Kerala, PRIs at three levels implement annual development plans and select project beneficiaries through a participatory approach. Based on an original cross-sectional dataset built from beneficiary surveys in two Gram Panchayats in Kerala, I model benefit availability from local government projects to target users on a list of potential determinants identified through a literature survey. I find that attendance in *Gram Sabhas* (neighbourhood meetings), household size, ownership of enterprises, credit status, and the gender of the head of the household significantly influence benefit availability.

**Keywords:** local governments, participatory planning, public expenditure

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## Context

This paper is a writing sample submitted with graduate admissions applications by Parvathy Sailesh (sailesh.parvathy@gmail.com). It is an extract from my master's thesis submitted for the degree of MA Development Studies at the Indian Institute of Technology Guwahati (IITG). The thesis assessed the fiscal efficiency of local governments in the Indian state of Kerala using budget analyses and cross-sectional surveys. In this sample, I have chosen to focus on one chapter of the thesis, which aims to determine the factors that govern the total monetary value of projects benefiting each household. My goal is to recreate the structure of a research paper, complete with a literature review, data analysis, and discussion of results. This extract uses a set of cross-sectional regression models as the method of analysis. I sincerely thank to Prof Bodhisattva Sengupta who guided this thesis project, and to the Department of Humanities and Social Sciences at IITG where it was conducted.

*Note:* The entire dissertation revolves around studying two Gram Panchayats, looking at each one separately. However, the extract discussed in this paper is from a section that combines data from both Gram Panchayats. So, the regression models do not exploit the differences between the two Gram Panchayats, but are based on the overall data collected from both. I point this out because, if taken out of context, it might seem strange that this extract is titled a study of two Gram Panchayats, but it does not emphasize their differences.

## Nomenclature

ER     Elected Representative

GP     Gram Panchayat

LSGI Local Self-Government Institution

PRI Panchayati Raj Institution

# 1 Introduction

*"When Panchayati Raj is established, public opinion will do what violence can never do... In Panchayati Raj, only the Panchayat will be obeyed, and the Panchayat can only work through the law of their making."*

M K Gandhi (Gandhi, 2011, p. 97)

*"I hold that these village republics have been the ruination of India. I am therefore surprised that those who condemn provincialism and communalism should come forward as champions of the village. What is the village but a sink of localism, a den of ignorance, narrow-mindedness and communalism?"*

Dr. B R Ambedkar at the Indian Constituent Assembly, 4 Nov 1948

(As quoted in Mathew and Nayak, 1996)

Until 1992, India's federal government framework had only two tiers - the union government and the state governments. As the quotes at the beginning of this section show, there was little agreement on the best federal governance framework for independent India. Gandhi's ideal of self-sufficient and self-ruled village republics was contested by Ambedkar's apprehension of village societies. Because of these disagreements, India chose not to set up local governments on the eve of its independence.

The failure of centralised planning led to a wave of decentralisation between the 1980s and 2000s (Bardhan, 2002). Decentralisation was thought to bring transparency, accountability, and growth. This wave spread to India too. In 1992, the Constitution (Seventy-third Amendment) Act in India introduced the Panchayati Raj as the third tier of federal government. It is a political system that draws on groups of village elders (Panchayats) who make decisions and resolve disputes. These have existed in the Indian subcontinent for many centuries (Hooja, 1978). In modern Gram Panchayats, members are elected by their constituents, and bureaucrats are appointed by the state government. What sets it apart from higher tiers of government is that planning and decision-making involves Gram Sabhas, or village assemblies to which all citizens in its jurisdiction are invited. Panchayati Raj Institutions (PRIs) brought participatory democracy to the grassroots, with a unique focus on welfare and development (Jayal, 2006).

This research project explores the factors determining the availability of benefits from Gram Panchayats' development projects, to households under their jurisdictions by looking at two Gram Panchayats in Kerala. The *73<sup>rd</sup>* and *74<sup>th</sup>* constitutional amendments placed the responsibility of devolving funds, functions, and functionaries on the country's state governments. This has led to wide disparities in the mandate, autonomy, and effectiveness of Panchayati Raj across states. Existing literature finds that Kerala's local governments have been successful in need identification, planning, implementation, and thereby enhancing the state's social development (Chakraborty, 2009). Exploring what determines citizens' access to project benefits in Kerala, can shed light on the reasons behind this success. Besides, in many states, most of the responsibility of initiating and implementing development and welfare schemes has been devolved to local governments. Thus, we need to understand the factors that influence the choice of beneficiaries in these projects.

## **1.1 Panchayati Raj in Kerala**

Kerala is a state in southern India (see Table A1 in Appendix for an economic profile of the state). The state has a history of socialist mass mobilisation, a politically active civil society, and high human development representing a unique set of economic transitions and power relations (John & Chathukulam, 2003). When Panchayati Raj was introduced, the government of Kerala chose to conduct an experimental mass campaign involving civil society. Previously, the state already had a rudimentary local government system put in place by the Kerala Panchayats Act of 1960. It remodelled this tier of government through the People's Planning Campaign (hereafter referred to as 'the Campaign'). At the launch of the Campaign, 35-40% of the state's budget was allotted to these rudimentary local governments (Chakraborty, 2009). With the participation of community members, local bodies surveyed their jurisdictions and generated Panchayat Development Reports, which identified needs and charted projects. This planning-from-below and its participatory implementation led to the organic evolution of the current local governance structure. Since then, almost all of Kerala's development projects have been devolved to Panchayats (Chakraborty, 2009).

Kerala's Panchayati Raj system consists of three hierarchical levels of governance - District Panchayats, Block Panchayats, and Gram Panchayats. Development planning, budgeting, and project implementation are primarily carried out at the Gram Panchayat level, with the two higher levels performing supervisory and coordinating roles (Chakraborty, 2009). The revenues of Gram

Panchayats come from transfer payments and grants issued by state and central governments, as well as their ‘own revenue’, collected from the tax bases allocated to them. Local governments received an average of 24.47% of the overall State Plan Outlay between 2016–17 and 2021–22 (Kerala State Planning Board, 2022). On a yearly basis, every LSGI consults with its Gram Sabhas to construct a development plan, which is approved by a district-level committee (Sharma, 2003). The Gram Sabhas give their prior approval to the beneficiary lists for each project. PRIs have complete autonomy regarding the expenditure of their own revenue and the funds that remain after the mandated outlays have been met. Pain and palliative care, livelihood and microfinance programs, initiatives for the disabled, public health and disease prevention, local public infrastructure, and support for agriculture and animal husbandry are some responsibilities under the mandate of Gram Panchayats (Isaac & Sadanandan, 2020).

## 2 Review of Literature

Local governments choose the target beneficiaries for their projects based on demographic and economic characteristics of the households in their jurisdiction, and their own expenditure preferences. Thus, two distinct strands of literature inform this study - (a) the processes and determinants of beneficiary selection in government welfare projects, and (b) the efficiency of government spending, especially at the local level. Beneficiary targeting is done in different ways, and there are varying opinions on the comparative and collective efficiency of these methods. Recent evidence has shown that popular mechanisms for beneficiary selection such as the Proxy Means Test (PMT) - where household characteristics are used as proxies for income to overcome problems associated with using self-reported income - are often inaccurate, and do not reflect changing levels of deprivation and need (Kidd et al., 2017). However, Alatas et al. (2012) found that in Indonesia, PMT performed better than community-targeting - where community members rank each other based on perceived poverty. Sabates-Wheeler et al. (2015) used data from an RCT (Randomised Controlled Trial) experiment in Kenyan cash transfers to find that community-targeting is in fact more successful in identifying the poorest households than other methods like categorical targeting. Devereux et al. (2017) observed that irrespective of the criteria used, the effectiveness of a targeting mechanism in identifying the most suitable beneficiaries lies in how well it is designed and implemented.

Aspects of the welfare project also influence targeting. Ajwad and Wodon (2007) looked into local government spending in Bolivia and found that benefits availed by social groups depend on the type of service provided - the poor attain more marginal benefit than the non-poor in education but not in infrastructure, for instance. Stoeffler et al. (2020) surveyed nearly seventy social programs in the Democratic Republic of Congo and found that beneficiary targeting was arbitrary and mostly used social categories as the basis. In a study of social safety net programs in Bangladesh, Haider and Mahamud (2017) found that even when beneficiary selection criteria were clearly set prior to the start of the program, more than half of the beneficiaries did not satisfy these.

When it comes to the determinants of public expenditure, they vary based on the tier of government considered, the structure of the State, and the political and ideological priorities of the government in power (Bahl et al., 1978). Municipal expenditures in Portugal was found to depend on topographic and demographic variables like weather, population density, age, and income (Alfonso & Venâncio, 2020). Seifert and Nieswand (2014) found that citizens' incomes and the share of inhabitants over the age of 65 are determinants of spending efficiency in French local governments. Empirical results on the comparative efficiency of centralised and decentralised regimes do not reach a consensus on the matter (Porcelli, 2009). Alfonso and Fernandes (2006) found that municipalities in Portugal with higher per-capita expenditure levels had lower efficiency scores. Thus, more spending does not necessarily translate into more benefits for targeted citizens. Seasonal population movement (especially through tourism) was found to affect efficiency negatively, since services offered to non-residents were subsidised through taxes collected from the local residents (De Borger et al., 1994). Metropolitan areas enjoy greater economies of scale accrued from catering to a larger population (Alfonso & Fernandes, 2006). In the aftermath of a structural reform of local governments in Portugal, Alfonso and Venâncio (2020) found a 10% efficiency gain accrued from reducing the total number of local government units. Interestingly, Aiello and Bonanno (2019) observed that even the study design influences the measurement of efficiency - literature that focused on technical efficiency usually yielded higher scores than the ones that assessed cost efficiency. While various beneficiary targeting methods are explained and compared in detail, there is no agreement on their relative advantages.

From a review of Cruz and Marques (2013), it can be seen that while some demographic variables have been shown to have a definite positive effect on public spending by local governments

(education, population, commercial activity, voter involvement and participation), and some others caused negative effects (per-capita incomes and financial resources at the disposal of local governments), for many variables, the effects are mixed or uncertain (ideology, financial independence, population density, and more abstract factors like institutions, responsibilities, and culture). For instance, Rajaraman and Gupta (2012) found that the gender of the PRI head was statistically insignificant in determining public infrastructure expenditure (specifically, water distribution). But on the other hand, Duflo et al. (2005) found that the identity of the PRI head (including their gender) had a direct impact on the provision and distribution of public goods in a village. Cruz and Marques (2013) observed that non-discretionary or exogenous factors were just as important as factors under the control of local government units in determining their efficiency. For example, spatial and temporal interactions with neighbouring municipalities influenced the spending decisions of Spanish municipalities (Rios et al., 2017). Thus, existing literature does not thoroughly address cases like Kerala, where beneficiary selection is also done through a participatory approach (here, through Gram Sabhas) rather than only through strict, rule-based criteria.

### **3 Methodology**

The objective of the study is to identify the factors that influence the total number of projects availed by, and consequently the total monetary value of the benefits accrued to a random sample of beneficiaries of the projects from the annual development plan of the selected Gram Panchayats (GPs) for the year 2021-22. I use quantitative research methods to construct a study of two selected GPs in Kerala.

#### **3.1 Gram Panchayats Studied**

The Gram Panchayats (GPs) chosen for the study are Pulamanthole (in Malappuram district) and Vilayur (in Palakkad district). Although they are from different districts, these GPs are geographically adjacent to each other and have similar socio-cultural milieus. Thus, these GPs were purposively chosen for the study for meaningful comparison. Based on information from Panchayat-Level Statistics (Kerala State Planning Board, 2022), Pulamanthole is a larger GP with more commercial activity, population, and a history of award-winning development performance.

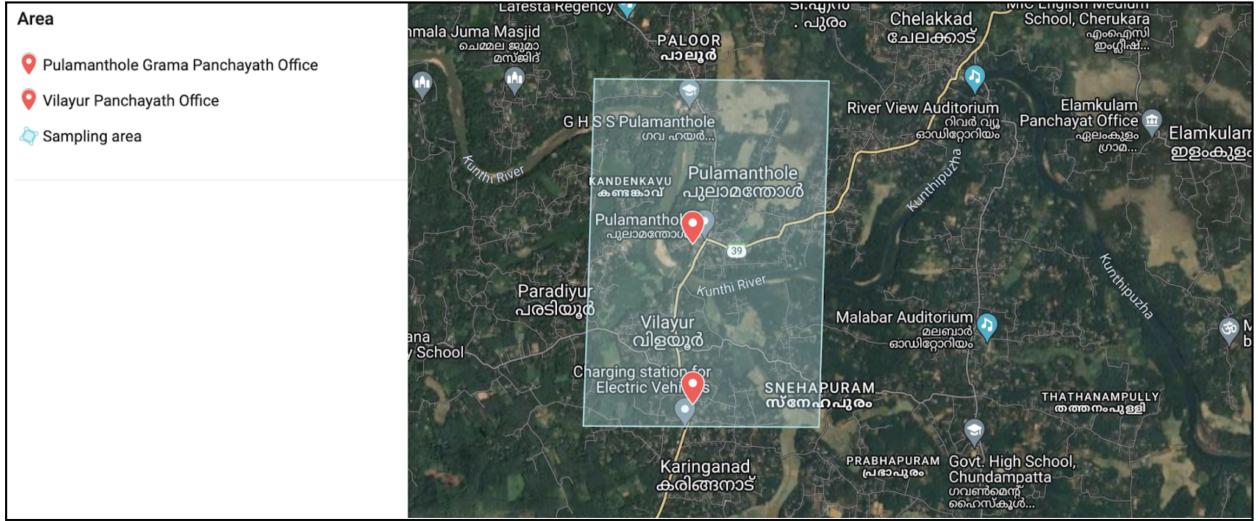


Figure 1: Google Maps view of the area from which beneficiary sample was taken

Vilayur GP is smaller in area and population, and fares at an above-average level in terms of performance. The shaded quadrilateral in Figure 1 shows a Google Maps view of the area from which the respondents of the survey were chosen. The shaded region includes both GPs. Table A2 provides basic information about the GPs studied (see Appendix).

### 3.2 Methods and Data

The review of literature yielded a set of potential determinants of benefits availed, and these factors were operationalised into variables and collected through the survey. These include gender, age, social/caste category, type of employment, number of expatriates from the household, age, household size, per-capita income, fraction of earning members in the household, fraction of dependents in the household, education index<sup>1</sup>, percentage of Gram Sabhas attended, enterprises owned, political participation, and credit status. Primary data was collected from a field survey of 100 random beneficiary households of both GPs combined. All of the respondents are heads of their households. For questions that pertain to the individual rather than the entire household, the values that apply to the head of the household (the respondent) were collected, except in the case of education where the highest number of years of schooling among the members of the household was recorded. Data from 80 respondents were used, after removing units with either missing data points or perceived divergence between their self-reported information and the observed field conditions.

<sup>1</sup>Education Index =  $\left( \frac{\text{Number of Years of Schooling of the Respondent}}{\text{Highest Number of Years of Schooling in the Sample}} \right) \times 100$

Beneficiaries were asked about the projects they availed from the GP. The per-capita expenditures of each GP on these projects for 2021-22 were collected from the GP office and used as weights to measure the total monetary benefits accrued to the respondents. For projects not implemented in 2021-22 but reported by beneficiaries, per-capita spending from 2020-21 was used. It needs to be noted that some projects have stringent beneficiary selection criteria that automatically exclude a large share of the households. Such projects were not considered for the analysis (for example, laptop distribution for students of Scheduled Castes was reported as a benefit availed only by SC households; it was excluded from the analysis because it is exclusive only to a subgroup of the respondents surveyed). In total, there were seventeen projects intended for individual beneficiaries and open to all categories (See Table 1)<sup>2</sup>. The total monetary value of benefits thus calculated, and the total number of benefits that each beneficiary availed, were separately modelled on the set of independent variables identified above. Ordinary Least Squares (OLS) and Poisson regression models are used, in either linear-linear or log-linear formats.

Table 1: List of programs considered

<b>Category</b>	<b>Program</b>
Social Welfare	Pain and palliative care
	Laptop distribution (General)
	Setting up biogas plants
	Life Mission (constructing homes for the homeless)
Infrastructure	House repair
	Water connection
	Toilet construction
	Supplementary nutrition
Financial Aid	Pensions
	<i>Kudumbashree</i> loans for self-help groups
Agriculture	Farming subsidy
	Fertilizer subsidy
	Seed distribution for paddy farmers
	Vegetable farming
	Coconut farming
	Pepper farming
	Awareness classes for farming

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<sup>2</sup>Note that non-rivalrous goods and services such as roads and canals have not been included in the analysis because of difficulties in assessing benefits accrued to individual respondents based on primary surveys.

## 4 Analysis and Findings

Tables 2 and 3 provide the summary statistics of the numerical and categorical variables collected from the survey, respectively. Overall, there are 19 variables, out of which eight are categorical and the remaining are numerical, including a mix of discrete and continuous variables. Out of all the respondents of the survey, 42 are from Pulamanthole GP, and 38 are from Vilayur GP.

Table 2: Summary Statistics of Numerical Variables

Variable	Description	Mean	Median	Std Dev	Max	Min
<i>projects</i>	Number of projects availed by the household	2.775	2	1.961	8	0
<i>mon-benefit</i>	Total monetary benefit availed by the household	30826.65	7411.5	46458.43	157936	0
<i>expats</i>	Number of expats in the household	0.162	0	0.371	1	0
<i>earning_mem</i>	Number of earning members in the household	1.325	1	0.424	4	1
<i>age</i>	Age of the respondent (head of the household)	51.825	52.5	11.156	76	24
<i>hhld_size</i>	Number of people in the household	4.737	4	2.265	13	1
<i>dep_no</i>	Number of dependents in the household	1.487	1	1.583	7	0
<i>school_yr</i>	Years of schooling of the respondent (head of the household)	9.987	10	3.037	16	1
<i>income</i>	Annual household income	255227	204000	163168.3	1000000	70000
<i>gramsabha</i>	Number of Gram Sabhas attended by the respondent (head of the household)	4.062	3	3.712	15	0
<i>percep</i>	Perception rating for the GP provided by the respondent	7.075	7	2.038	10	2
<i>edu_index</i>	Education index for respondent	0.599	0.6	0.202	1	0

Note.  $n = 80$

Table 4 summarises the regression models and their results. The table includes six models, each with either total monetary benefits, log monetary benefits, or the number of projects availed as the dependent variable. Model 1,2 and 3 use OLS for the dependent variables total monetary benefits (*mon\_benefit*), and log of total monetary benefit (*log\_mon\_benefit*). Models 4, 5, and 6 use the Poisson regression model for the dependent variable total number of projects (*projects*). The coefficients represent the change in the dependent variable associated with a one-unit change in the independent variable, holding all other independent variables constant. Model 1 revealed high heteroskedasticity (see Table A3). To solve for this, a robust regression with the same dependent

Table 3: Percentage Distribution of Categorical Variables

Variable	Label	Categories	Description	Frequency	Percentage
<i>panchayat</i>	Gram-chayat	Pan-1	Pulamanthole	42	52.50
<i>gend</i>	Gender	2	Vilayur	38	47.50
		0	Male	49	61.25
		1	Female	31	38.75
<i>cat</i>	Category	0	General	30	37.50
		1	Other Backward Classes (OBC)	36	45.00
		2	Scheduled Caste (SC)	14	17.50
<i>emp</i>	Employment	0	Unskilled manual labour	20	25.00
		1	Semi-skilled labour	26	32.50
		2	Skilled (informal sector) labour	1	1.25
		3	Skilled (formal sector) labour	11	13.75
		4	Farming	15	18.75
		5	Self-employed	7	8.75
<i>own_ent</i>	Own enterprises set up	0	No (none set up by the household)	70	87.50
		1	Yes (at least one enterprise set up by the household)	10	12.50
<i>pol_part</i>	Political participation	0	No (not an active party member)	50	62.50
		1	Yes (active party member)	30	37.50
<i>mar_stat</i>	Marital status	0	Unmarried respondent	1	1.25
		1	Married respondent	64	80.00
		2	Widowed respondent	15	18.75
<i>credit_stat</i>	Credit status	0	No active debt	44	55.00
		1	Borrowed and in repayment	36	45.00

*Note : n = 80*

variable is constructed in Model 2. Model 3 uses the log-transformed version of total monetary benefits as the dependent variable (see Table A4 for proof of the absence of heteroskedasticity in Model 3). Models 4, 5, and 6 are Poisson regressions since the dependent variable in these models (*projects* - i.e., the number of projects) is a discrete variable. Poisson models allow us to relax the assumption that the dependent variable is normally distributed. Not all independent variables made it to the final models. Each estimation attempted to optimize the predictive power of the model. P-values of each coefficient is given in parentheses. Some of the independent variables identified from the literature were dropped in the final analyses because they led to overidentification in the models.

At or above 90% confidence interval, the gender of the respondent (who is the head of the household), the percentage of Gram Sabhas attended, ownership of enterprises, and the credit status of the household are found to be significant determinants of total monetary benefit availed in Model 1. In model 2, gender and education index are additionally significant. Household size, percentage of Gram Sabhas attended, and social category are significant determinants of the number of projects availed, in various specifications of the Poisson model. The percentage of Gram Sabhas attended is significant in all models across the table, at or higher than a 99% confidence interval. This is strong evidence in support of its influence in the benefits availed by citizens through local government projects. Postestimation tests revealed no evidence of multicollinearity. Different tests of goodness of fit yield close results, and they corroborate that the models are good fits for the data (See Table A5).

Besides, the gender of respondent, credit status, and household size are significant in three models each - the first two in OLS models and the third in Poisson models only. Ownership of enterprises is significant in two models. Thus, we can infer that the percentage of Gram Sabhas attended (positive influence), the gender of the head of the household (female - positive influence), credit status (currently indebted - negative influence), household size (positive influence), and ownership of enterprises (positive influence) as the most likely determinants of benefit availability.

Table 4: Results of Regression Models

	Model number	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent Variables		<i>mon_benefit</i> (OLS)	<i>rmon_benefit</i> (OLS – Robust)	<i>log_mon_benefit</i> (OLS)	<i>projects</i> (Poisson)	<i>projects</i> (Poisson)	<i>projects</i> (Poisson)
Gender		25701.65 (0.030)	28325.47 (0.014)	0.7791 (0.043)	-0.0966 (0.600)	-0.0642 (0.718)	-0.1050 (0.566)
Other Backward Classes (OBC)		-2161.12 (0.849)	-2823.32 (0.785)	-0.2593 (0.483)	-0.1754 (0.333)	-0.1948 (0.276)	-0.1807 (0.318)
Scheduled Castes (SC)		11154.73 (0.464)	12918.01 (0.356)	0.4787 (0.352)	-0.4181 (0.102)	-0.4074 (0.109)	-0.438 (0.085)
Semi-skilled labour		4076.46 (0.766)	- (0.714)	-0.1706 (0.5162)	-0.0149 (0.628)	-0.0066 (0.608)	0.0024 (0.727)
Skilled informal labour		-23215.4 (0.600)	- (0.720)	-0.9460 (0.247)	0.2701 (0.489)	0.2558 (0.510)	-0.2629 (0.407)
Skilled formal labour		-9681.81 (0.694)	- (0.778)	-0.1654 (0.247)	0.2072 (0.454)	0.2555 (0.340)	0.2269 (0.407)
Farming		-9267.42 (0.603)	- (0.778)	-0.9460 (0.247)	0.2701 (0.489)	0.2558 (0.510)	0.3202 (0.407)
Self-employed		-17463.93 (0.465)	- (0.132)	-1.18 (0.288)	0.0774 (0.848)	0.0717 (0.858)	0.0616 (0.878)
No. of expats		-23732.27 (0.116)	-18750.15 (0.174)	-0.5254 (0.288)	0.2650 (0.191)	0.2451 (0.222)	0.2315 (0.244)
Age		-670.99 (0.233)	-689.36 (0.190)	-0.0331 (0.078)	-0.0090 (0.265)	-0.0081 (0.306)	-0.0094 (0.243)
Household size		2268.61 (0.510)	2322.24 (0.529)	0.1306 (0.253)	0.1004 (0.031)	0.0890 (0.042)	0.0903 (0.046)

	0.0505 (0.779)	-0.0003 (0.997)	-5.93*10 <sup>-7</sup> (0.921)	-2.20*10 <sup>-6</sup> (0.491)	-1.64*10 <sup>-6</sup> (0.591)	-2.72*10 <sup>-6</sup> (0.387)
Per-capita household income						
Frac. of earning members	-17785.62 (0.501)	-19257.95 (0.213)	-0.5895 (0.498)	0.3192 (0.483)	-	0.2421 (0.589)
Frac. of dependents	-5669.86 (0.793)	-8156.28 (0.607)	-0.1840 (0.798)	0.3120 (0.328)	0.2769 (0.381)	-
Education index	-41175.63 (0.163)	-47934.74 (0.087)	-1.41 (0.140)	-0.1131 (0.793)	-0.0883 (0.837)	-0.0566 (0.894)
Percent. of Gram Sabhas attended	633.57 (0.013)	641.99 (0.018)	0.0180 (0.029)	0.0099 (0.003)	0.0103 (0.002)	0.0110 (0.001)
Owns enterprises	34890.8 (0.046)	30116.24 (0.059)	0.8775 (0.120)	0.1660 (0.466)	0.1654 (0.468)	0.1718 (0.450)
Active political participation	-6877.16 (0.535)	-5412.26 (0.599)	0.2124 (0.558)	-0.0598 (0.707)	-0.0662 (0.677)	-0.1046 (0.493)
Credit status	-22894.28 (0.086)	-22536.92 (0.046)	-0.8107 (0.068)	0.0936 (0.650)	0.0425 (0.824)	0.0417 (0.833)
Constant	71739.4 (0.130)	75279.54 (0.082)	11.25 (0.000)	0.6610 (0.314)	0.7456 (0.247)	0.8600 (0.171)
Number of observations	80	80	80	80	80	80
R-squared	0.4251	0.4093	0.5139	-	-	-
Pseudo R-squared	-	-	-	0.1896	0.1881	0.1866
Prob >F	0.0067	0.0039	0.0002	-	-	-
Prob > $\chi^2$	-	-	-	0.0000	0.0000	0.0000

## 5 Discussion

In Gram Panchayats, beneficiaries of projects are chosen in a participatory manner. In projects that do not have category-based or specific criteria-based targeting, does this participatory approach accurately pick out vulnerable households among its citizenry? Identifying the factors that influence the monetary value of benefits accrued to households in the two Gram Panchayats studied here, sheds some light on this question. Respondents who attended more Gram Sabhas, those with larger households, and those who owned enterprises were more likely to get a higher monetary benefit from the annual plan projects. Women were also likely to get more benefits. In addition, households that are indebted tend to gain less benefits from the annual plans.

The percentage of Gram Sabhas attended is a direct measure of the political participation of a household. Showing up for these neighbourhood meetings positively influences the benefits that households get from their local governments. There may be many processes at play here. Perhaps, the social and economic statuses of participating families are more familiar to others in the neighbourhood. Thus, their vulnerability is accounted for when beneficiary selections are made. Or, families that regularly attend Gram Sabhas tend to have a wider network of connections, and tend to lobby for their inclusion in projects. Similarly, there could be multiple mechanisms in action in the case of credit status too. One possible explanation is that indebted households are more reluctant spare hours from work to attend Gram Sabhas, especially when they are paid on an hourly basis. Further research needs to be conducted to understand these mechanisms. Nevertheless, the findings from this study indicates that encouraging participation in Gram Sabhas and reducing indebtedness can bring more benefits to the target communities by enabling them to take part in more projects. Women tend to access more projects initiated by the Gram Panchayats studied. Larger households are an indicator that more individuals can avail of targeted services like *anganwadis* and supplementary nutrition. Based on these results, more participation in local democratic processes and better beneficiary targeting can make local government spending more value-adding to its people.

Since this study uses cross-sectional data, a relatively small sample, and is focused on a small area, I do not make any generalisable causal conclusions. Another limitation is that although the GPs have been chosen with utmost care to make them as comparable as possible, they have key

administrative differences. Pulamanthole is a larger Gram Panchayat with a larger population and more own revenue sources, compared to Vilayur. Nevertheless, they have comparable per unit measures like population density (1417.2/sq.km. in Vilayur and 1462.3/sq.km. in Pulamanthole). These factors open up avenues for future research using longitudinal data on larger samples covering larger areas. Besides, I assume that all households have access to complete information on the projects for which they are eligible. This is a viable assumption in the GPs covered in this study because elected representatives are bound to inform households in their ward about the latest projects and Gram Sabha dates, by distributing fliers, sharing WhatsApp messages, etc. In other regions, this assumption may not hold. Studying access to information on local government projects can also yield valuable insights into beneficiary targeting and benefit incidence.

## 6 References

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## 7 Appendix

Table A1: An Economic Profile of Kerala

<b>Category</b>	<b>Value</b>
Geographical area (sq. km)	38863
Population (2010 census)	
Total	33406000
Male	16027000
Female	17379000
Rural	17471000
Urban	15935000
Scheduled Castes	3040000
Scheduled Tribes	485000
Population Density (no. per sq. km.)	860
Literacy rate (percentage)	94
Urban Population (percentage)	48
Other demographics (2020-21)	
Birth Rate (per 1000 population)	13.5
Death Rate (per 1000 population)	7.1
GSDP at constant prices (2020-21)	
GSDP	514399.99
Primary sector (in Rs. crore)	44804.72
Secondary sector (in Rs. crore)	114871.28
Tertiary sector (in Rs. crore)	291020.18
Per-Capita Income (in Rs.)	146910
Local governments (2020-21)	
District Panchayats	14
Block Panchayats	152
Gram Panchayats	941
Municipalities	87
Corporations	6

*Source:* (Kerala State Planning Board, 2022)

Table A2: Profiles of the GPs studied

	Vilayur GP	Pulamanthole GP
Revenue village	Vilayur	Pulamanthole, Kuruvambalam
Taluk	Pattambi	Perinthalmanna
District	Palakkad	Malappuram
Block Panchayat	Pattambi	Perinthalmanna
Number of wards	15	20
Area	17.73 sq. km	32.15 sq. km
Population	25127	47014
Literacy	93.41%	98%

Source: Primary data collected from GP Annual Development Plans

Table A3: Breusch–Pagan/Cook–Weisberg Heteroskedasticity Test – Model 1

Assumption:	Normal error terms
Variable:	Fitted values of <i>mon_benefit</i>
H <sub>0</sub> :	Constant variance
$\chi^2(1) =$	24.06
Prob > $\chi^2$ =	0.0000

Table A4: Breusch–Pagan/Cook–Weisberg Heteroskedasticity Test – Model 3

Assumption:	Normal error terms
Variable:	Fitted values of <i>log_mon_benefit</i>
H <sub>0</sub> :	Constant variance
$\chi^2(1) =$	0.21
Prob > $\chi^2$ =	0.6507

Table A5: Goodness-of-fit of Poisson Models

Model	Model 4	Model 5	Model 6
Deviance goodness-of-fit	43.93 (0.9406)	44.40 (0.9456)	44.89 (0.9393)
Pearson goodness-of-fit	44.81 (0.9281)	45.408 (0.9322)	45.32 (0.9334)